UNIVERSAL SNAP-IN-PLACE CUSTOMER LABEL PLATE

BACKGROUND OF THE INVENTION

1. Field of the Invention

Embodiments presented herein generally relate to a label holder and method for labeling rack-mounted and/or cabinet-mounted computer system components.

2. Description of the Relevant Art

Rack-mounting of computer hardware has become commonplace. Rack-mounting computer hardware allows components to be stacked vertically. These installations tend to minimize floor space (or footprint) required for computer system components. Minimizing footprint may generally allow for optimum use of floor space and/or heating, ventilation and air conditioning (HVAC) capacity. Minimizing footprint may be especially important for computer system installations where existing facilities are being upgraded, since expanding rooms or buildings may be prohibitively expensive. Additionally, rack-mounting may allow centralization of computer hardware. Centralizing computer hardware may provide increased security of computer systems as compared to decentralized configurations. Centralizing computer hardware may also improve ease of computer system administration as compared to decentralized configurations.

In recent years, the demand for computing power has grown rapidly. This demand for increased computing power has often been met by upgrading or replacing existing computer hardware. Since even rack-mounted installations may be space constrained, it may be desirable to minimize space taken up by each computer system component. Thus, there has been a drive within the computer industry to reduce computer component form factors. A commonly recognized computer industry form factor unit has been developed by which computer system components may be measured. The form factor unit, commonly referred to as a "U," generally describes a rack or cabinet mountable computer system component having a height not greater than about 1.75 inches. Depending on the specific requirements of each computer component (e.g., cooling, mounting and power requirements), as many as 41 individual 1U components may be mounted in a 72-inch high rack.

Typically, individual computer system components may be named and/or numbered. For routine maintenance or computer system disruptions, it may be important for personnel to be able to identify each individual component of a computer system. For example, computer system administration software may identify a computer system component that has a problem by the component's assigned number. With a large number of components per rack and possibly a large number of racks in a single installation, it may be difficult for personnel to identify the component quickly. To counter this problem, computer system components may be labeled with their assigned name and/or number. Much of the front surface area of each computer system component may include ventilation grating. Applying identification labels to a ventilation grating may restrict ventilation through the component. Restricting ventilation may create a risk of equipment damage or reduced equipment performance due to excessive heat buildup. This concern may be especially true for low U components (e.g., 1U), since the available ventilation area of these components may be substantially reduced as compared to higher U components (e.g., 3U). Thus, an improved method of identifying computer components in a rack-mounted or cabinet-mounted installation that does not significantly obstruct airflow may be desired.

SUMMARY OF THE INVENTION

Embodiments presented herein generally relate to a label holder and method for labeling rack-mounted computer system components.

In an embodiment, a label holder may include an elongated body, a plurality of legs extending from the body, and at least one retaining foot coupled to at least one leg. The elongated body may be configured to retain an identification label. Additionally, the dimensions of the body and the legs may be selected to allow air to flow around and beneath the holder.

Some embodiments of a label holder may include a shoulder ledge. The combination of the shoulder ledge and at least one retaining foot may be configured to keep the elongated body at a desired distance from the surface of the computer system component. Additionally, some embodiments may include one or more stiffening members. For example, a stiffening member may be coupled to each leg. The stiffening members may also be coupled to the elongated body. In such embodiments, a shoulder ledge may be formed on the bottom of one or more stiffening members.

After providing a label holder, a computer system component may be labeled by placing an identification label on the holder and engaging at least one retaining foot of the holder with an opening in a surface of the computer system component. Placing an identification label on the holder may include affixing an adhesive label to the holder, writing on the holder or magnetically or physically applying a label to the holder. Engaging at least one retaining foot of the holder with an opening on the surface of the computer system component may include sliding a first retaining foot into a first opening. A second retaining foot may then be engaged with a second opening in the surface. The second retaining foot may be engaged with the second opening by applying an engaging force. Alternately, at least one leg and/or the elongated body may be elastically deformed to allow the second retaining foot to engage the second opening.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects and advantages of the invention will become apparent upon reading the following detailed description and upon reference to the accompanying drawings in which:

FIG. **1** is an exploded perspective side view of a rack-mounted computer system with a label holder;

FIG. **2** is a side perspective view of an embodiment of a label holder; and

FIG. **3** is a flow chart of a method of labeling a rack-mounted computer system component according to one embodiment.

While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail. It should be understood, however, that the drawing and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the contrary, the intention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the present invention as defined by the appended claims.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

As used here in, "rack-mounting" generally refers to mounting within a rack or shelving system. Typical rack-